

## **REMARKS**

Entry of the foregoing amendments is respectfully requested.

### **Summary of Amendments**

Upon entry of the foregoing amendments, claims 52, 70, 75, 76, 81 and 82 are amended and claims 85-88 are added, whereby claims 52-88 will be pending, with claims 52, 70 and 75 being independent claims. Claim 65 is withdrawn from consideration.

Support for the new and amended claims can be found throughout the present specification (see, e.g., pages 10, 11, 15 and 18 thereof).

Applicants emphasize that the amendments to claims 52, 70, 75, 76, 81 and 82 are without prejudice or disclaimer, and Applicants expressly reserve the right to prosecute the amended claims in their original, unamended form in one or more continuation and/or divisional applications.

### **Summary of Office Action**

As an initial matter, Applicants note with appreciation that the Examiner appears to have withdrawn all rejections set forth in the previous Office Action with the exception of the rejection under 35 U.S.C. § 112, second paragraph.

Claims 52-64 and 66-84 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 52-64 and 66-84 are rejected under 35 U.S.C. § 103(a) as allegedly being

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unpatentable over (an English language translation of) JP 04-292677 (hereafter “JP’677”) in view of Anderson et al., U.S. Patent No. 6,387,519 (hereafter “ANDERSON”). In this regard, the Examiner is respectfully requested to also make the English language translation of JP’677 officially of record on a form PTO-892.

Claims 61, 74 and 75 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP’677 in view of ANDERSON and further in view of Kayanoki, U.S. Patent No. 6,703,131 (hereafter “KAYANOKI”).

#### **Response to Office Action**

Reconsideration and withdrawal of the rejections of record are respectfully requested, in view of the foregoing amendments and the following remarks.

#### ***Response to Rejection under 35 U.S.C. § 112, Second Paragraph***

Claims 52-64 and 66-84 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The rejection again alleges that the term “low-energy surface” renders the rejected claims indefinite.

Applicants respectfully disagree with the Examiner in this regard. At any rate, the claims submitted herewith do no longer recite the term “low-energy surface”, wherefore this rejection is moot.

***Response to Rejection under 35 U.S.C. § 103(a) over JP'677 in View of ANDERSON***

Claims 52-64 and 66-84 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP'677 in view of ANDERSON. The rejection essentially alleges that JP'677 teaches all of the elements that are recited in the rejected claims with the exception of the one or more types of inorganic particles and that this deficiency of JP'677 is cured by ANDERSON which allegedly teaches that it is well known in the art to incorporate ceramic particles having a typical particle diameter of 0.001-50 microns in polymer-based coating systems in order to provide enhanced adhesion and abrasion resistance.

Applicants respectfully traverse this rejection. In particular, as correctly noted by the Examiner, the coating composition of JP'677 differs from the instantly claimed composition *inter alia* in that it does not contain inorganic particles but an “inorganic organosol”. JP'677 does not provide much information regarding the nature of the “inorganic organosol” employed therein. It is, however, apparent that this “inorganic organosol” is particle-free. JP'677 further teaches that the coating compositions taught therein have “excellent weatherability and abrasion resistance”. See, e.g., paragraph [0001] of JP'677.

ANDERSON on the other hand, describes the use of particles in coating compositions to make the cured compositions scratch resistant and further teaches that in the cured coatings the concentration of the particles in the surface region of the cured composition is greater than the concentration of particles in the bulk regions of the cured composition (see, e.g., col. 3, lines 15-20 of ANDERSON). While ANDERSON discloses various types of resins which may be used in the coating compositions disclosed therein, ANDERSON does not appear to disclose

compositions which comprise “mixed” systems of the type used in the coating compositions of JP’677 such as e.g., mixed polyurethane/functional fluoropolymer systems.

In view of the foregoing facts it is not seen that there is an apparent reason for one of ordinary skill in the art to replace the particle-free “inorganic organosol” in the coating compositions of JP’677 by the inorganic particles mentioned in ANDERSON. After all, the effect of the particles described by ANDERSON is to provide scratch resistance. However, the coating compositions of JP’677 are taught to have “excellent” abrasion resistance (and thus, scratch resistance), wherefore it is not seen that anything could be gained by replacing the “inorganic organosol” of JP’677 by particles.

Further, it can safely be assumed that the inventors of JP’677 were aware of the use of particles in coating compositions for improving the scratch (abrasion) resistance of cured coatings but nevertheless chose to not employ particles. One of ordinary skill in the art can only assume that the reason therefor is the concern that particles may interfere with the formation of the “mixed” polymer system employed according to JP’677, i.e., a polymer system different from those disclosed in ANDERSON.

It further is pointed out that according to ANDERSON the employment of particles results in a concentration gradient of the particles in the cured coating. On the other hand, as can be taken from the Examples of the present application, the coatings made from compositions according to the present invention do not appear to comprise a significant concentration gradient of the particles (which can be concluded from the fact that in Taber abrasion tests the contact angles of the coatings do not change significantly after abrasion).

Applicants also point out that the compositions of the present invention result in coatings which are not only abrasion-resistant but also show a high alkali-resistance, a property which is neither taught nor suggested by JP'677 or ANDERSON.

It is submitted that for at least all of the foregoing reasons, the instant rejection under 35 U.S.C. § 103(a) is without merit and should be withdrawn, which action is respectfully requested.

***Response to Remaining Rejection under 35 U.S.C. § 103(a)***

Dependent claims 61, 74 and 75 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP'677 in view of ANDERSON and further in view of KAYANOKI. The rejection alleges that KAYANOKI discloses that it is well known in the art to surface treat inorganic oxide particles used as fillers in urethane-based coating compositions with amine-based compounds in order to improve uniform dispersibility and to avoid undesirable agglomeration of particles.

Applicants respectfully traverse this rejection as well. In particular, KAYANOKI is unable to cure the deficiencies of JP'677 and ANDERSON set forth above and for this reason alone, the subject matter of the rejected dependent claims is not rendered obvious by the cited documents. In view thereof, Applicants refrain from commenting on the Examiner's corresponding allegations without admitting, however, that these allegations are meritorious.

**CONCLUSION**

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, wherefore an early issuance of the Notices of Allowance and Allowability is respectfully solicited. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,  
Ertugrul ARPAC et al.

/Heribert F. Muensterer/  
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